

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF MICHIGAN
SOUTHERN DIVISION

F I L E D
MAR 23 2020

CLERK'S OFFICE
U.S. DISTRICT COURT

DESMOND RICKS, AKILAH
COBB, and DESIRE'A RICKS,

Case No. 17-12784

Plaintiffs,

v.

Paul D. Borman
United States District Judge

DAVID PAUCH, DONALD
STAWIASZ, and ROBERT B.
WILSON,

Defendants.

**OPINION AND ORDER DENYING
DEFENDANTS' MOTION TO STRIKE EXPERTS (ECF NO. 93)**

Plaintiff Desmond Ricks was released from prison in 2017 after serving 25 years on a wrongful conviction for murder. Mr. Ricks and his two adult daughters filed this suit under 42 U.S.C. § 1983 against the City of Detroit and three City of Detroit police officers alleging violations of Ricks' constitutional rights based upon alleged fabrication and withholding of evidence. The City of Detroit has since been dismissed with prejudice pursuant to a Stipulated Order of Dismissal. Now before the Court is Defendants' Motion to Strike Expert Witnesses by All Defendants. The motion has been fully briefed and the Court held oral argument on December 6, 2019. For the reasons that follow, the motion is DENIED.

I. FACTUAL AND PROCEDURAL BACKGROUND

The background facts of this action are set forth in detail in prior Orders of the Court. The facts and expert opinions relevant to the instant motion will be discussed in more detail below.

A. Desmond Ricks' March 5, 1992 Arrest

Gerry Bennett was shot to death in the parking lot of a Top Hat restaurant on March 3, 1992. The medical examiner retrieved two bullets from Bennett's body on March 4, 1992 – one from Bennett's brain and one from Bennett's spine. Ricks had accompanied Bennett to the restaurant on March 3rd, and he was subsequently arrested for Bennett's murder on March 5, 1992. At the time of Ricks' arrest at his mother's house, the police took possession of a Rossi .38 Special, 5-shot revolver, serial # D373334 (the "Rossi handgun") that belonged to Ricks' mother. Both the bullets retrieved from Bennett's body and the Rossi handgun were conveyed to the Detroit Crime Lab for testing.

B. Pauch and Wilson's 3/6/1992 Firearms Identification Report

On March 6, 1992, the day after Ricks was arrested, Defendant Donald Stawiasz, assigned as the Detroit Police Officer-in-Charge of the investigation into Gerry Bennett's murder, requested that firearms testing be conducted on the Rossi handgun taken from Ricks' home, to compare test-fired bullets to the slugs removed from Gerry Bennett's body. (ECF No. 92-5, Request for Lab. Serv.) Stawiasz

submitted the handgun to the Detroit Crime Lab for testing, which had previously received the slugs from Bennett's body. (*Id.*) Defendant David Pauch was the assigned examiner, and Defendant Robert Wilson was his immediate supervisor. (ECG No. 93-3, Pauch and Wilson Firearms Id. Rpt.; ECF No. 98-3, David Pauch Deposition Tr. at p. 39.)

On March 6, 1992, Pauch, with Stawiasz present, test fired bullets from the Rossi handgun and compared those test-fired bullets to the bullets removed from Bennett's body. (Pauch & Wilson Firearms Id. Rpt.; ECF No. 91-32, Prelim. Exam. Tr. Pauch Testimony at p. 39; ECF No. 91-34, Trial Tr. Vol. 3 Pauch Testimony at p. 53.) Wilson, as Pauch's supervisor, also independently examined the bullets and compared them to the test-fired bullets from the Rossi handgun. (ECF No. 98-6, Robert Wilson Deposition Tr. at pp. 45-46; Pauch Dep. at p. 110.)

As explained more fully below, bullets and guns may be classified by the number of lands and grooves and the direction of twist (right-hand or left-hand) of the gun barrel or bullet. By examining the lands and grooves and the direction of twist of a firearm or bullet, these "class characteristics" can help to determine whether a certain bullet was fired from a certain gun. *See Section III.A., Overview of Firearms Identification, below.*

Pauch states that he could not count or measure the lands and grooves on the evidence bullets because they were too damaged. (Pauch Dep. at pp. 78, 84, 99.)

He thus could not identify the general rifling characteristics or class of gun that fired the evidence bullets. (*Id.* at pp. 78, 103, 106.) He indicated on the lab report that the evidence bullets had “traces of lands and grooves.” (Pauch & Wilson Firearms Id. Rpt.) Pauch further noted on the report that the Rossi handgun was classified as a “6-R”, which means that the barrel of the gun would cut six grooves (and corresponding lands) into the surface of a bullet when fired, while the “R” designation signifies a right-hand rotation or twist. (*See id.*) Pauch compared the evidence slugs with the test-fired bullets from the Rossi handgun and opined that the comparison “yielded a POSITIVE ID. Meaning the fired evidence was fired from the above weapon.” (*Id.* (capitalization in original).) Wilson states that he performed a microscopic examination, confirmed the match found by Pauch, and signed the report. (Wilson Dep. at p. 45; Pauch & Wilson Firearms Id. Rpt.) The evidence was then returned to the property room. (Wilson Dep. at pp. 70-71; Pauch Dep. at p. 103.)

C. David Townshend’s 8/17/1992 Firearms Identification Report

On June 5, 1992, the trial court granted Ricks’ motion to appoint a firearms identification expert and ordered that all tests be performed at the Detroit Police facilities. (ECF No. 91-66, Mot. and Final Conf. Tr. at pp. 18, 23-24.) Ricks retained David Townshend, a retired Michigan State Police firearms examiner, to serve as

the appointed expert. (ECF No. 93-4, David Townshend Deposition Tr. at pp. 85, 87.)

On July 15, 1992, the trial court entered an Order that the physical evidence, including the slugs removed from Bennett's body and the Rossi handgun, be examined by Townshend, and that Townshend shall be allowed to test fire the Rossi handgun. (ECF No. 91-68, July 15, 1992 Court Order.) The Order further provided that Defendant Stawiasz be present during the entire time the tests are performed and that “[t]he tests will be conducted at the Detroit Police Department.” (*Id.*)

Townshend received a copy of the Pauch and Wilson Firearms Identification Report on July 20, 1992. (ECF No. 91-72, Townshend Invoice.)

On August 6, 1992, the Wayne County trial court issued a new order that Townshend's examination take place at Townshend's lab in Mason, Michigan instead of the Detroit Police Department, and directing Defendant Stawiasz to transport the evidence to and from Townshend's lab. (ECF No. 91-69, August 6, 1992 Court Order.)¹

¹ Townshend surmises that this location change was a result of “animosity” towards him by the Detroit Police Department as a result of his microscopic examination results and trial testimony in a prior shooting case that conflicted with the testimony of the Detroit Police Department firearms examiner regarding the positive identification of the evidence bullet. (ECF No. 93-8, David Townshend July 2015 Affidavit at p. 1.) He asserts that this animosity is “exemplified in a letter written by Deputy Chief Gloria Reynolds[,] the Director of the D.P.D. Crime Lab[,] and the Assistant Prosecuting Attorney Kenneth E. Simon.” (*Id.*) This letter was not attached as an exhibit to Townshend's Affidavit but was discussed during

Stawiasz transported the evidence to Townshend's lab for testing on August 16, 1992. (ECF No. 91-47, Donald Stawiasz Deposition Tr. at p. 68.) Upon receipt of the evidence, Townshend test-fired the Rossi handgun provided by Stawiasz, microscopically examined the "evidence bullets" provided by Stawiasz, compared those "evidence bullets" to the bullets Townshend test-fired from the Rossi handgun, and concluded that the bullets represented by Stawiasz to have come from the victim's body matched the Rossi handgun. (ECF No. 93-5, Townshend 8/17/92 Firearms Identification Report.) Townshend states that he was concerned that the two "evidence bullets" he was given to examine were "too pristine" to have been recovered from the victim's body, but that when he questioned Stawiasz about this at the time of the examination, Stawiasz assured Townshend that the bullets provided to him were in fact from the victim's body. (Townshend Dep. at pp. 127-28.) However, Townshend did not note this concern in his report. (*See* Townshend 8/17/92 Firearms Id. Rpt.)

D. Ricks' 9/23/92 Conviction and Townshend's 2015 Affidavit

Ricks was subsequently tried and convicted of second-degree murder and felony firearm on September 23, 1992, and sentenced to 42 to 62 years in prison.

Townshend's deposition. (Townshend Dep. at pp. 110-16.) According to his testimony, the "Reynolds letter" requests that the Michigan State Police evaluate the evidence in this case instead of Townshend because Reynolds claims that Townshend invariably concludes that the evidence is such that no conclusion can be made as to whether there is a match. (*Id.*)

(ECF No. 92-19, Judgment of Sentence, 10/12/92.) His direct appeals to the Michigan Court of Appeals and Michigan Supreme Court were unsuccessful, as was his first Motion for Relief from Judgment. (ECF No. 91-85, Stipulated Order Granting Defendant's Successive Motion for Relief from Judgment.)

In April 2015, Townshend examined digital photographs of the evidence bullets that had been received by the Michigan Innocence Clinic, and he signed an affidavit on July 8, 2015 stating the photographs showed "lead bullets that are severely mutilated and extensively damaged." (Townshend Aff. at p. 3.) He averred that the evidence bullets depicted in the photographs "are not the fired bullets [he] received and microscopically examined on August 15, 1992." (*Id.*) He further stated that "[t]he fired bullets exhibited in the digital photographs are in such a mutilated and damaged condition it is doubtful that a positive identification with a suspect firearm would be possible." (*Id.*) Townshend opined that "[a] new examination of the evidence on this case is warranted." (*Id.*)

On June 1, 2016, Ricks filed a Successive Motion for Relief from Judgment, relying primarily on Townshend's Affidavit. (Stip'd Order Granting Def.'s Successive Mot. for Relief, ¶ 6.)

E. MSP Sergeant Dean Molnar's Firearms Toolmarks Reports

During the post-conviction proceedings, the court ordered, and the parties agreed, to have the slugs re-evaluated by the Michigan State Police Crime Lab.

(Stip'd Order Granting Def.'s Successive Mot. for Relief, ¶¶ 11-12.) Michigan State Police Sergeant Dean Molnar was assigned to conduct the evaluation. The Detroit Police Department had retained the evidence bullets, but the Michigan State Police had destroyed the Rossi handgun after Ricks' appeals and initial motion for relief from judgment were denied. (*Id.* ¶ 11; ECF No. 91-86, Evidence Tag Audit History for ET#923423.) Molnar thus could not fire test shots from the Rossi handgun and compare those test-fired bullets to the evidence bullets. Instead, Molnar was asked to analyze the evidence bullets themselves and identify the slugs to the class of the revolver (the Rossi handgun) reported by Pauch (6 lands and grooves with a right twist – a “6R”). (ECF No. 93-13, Dean Molnar Deposition Tr. at pp. 15-17; Pauch & Wilson Firearms Id. Rpt.)

In his examination, Molnar measured the caliber of the bullets, weighed them, and noted visible land and groove markings with a right twist. He concluded that both evidence bullets were too deformed to make a positive match with each other, meaning that he could not positively identify that the bullets were fired from the same gun. (Molnar Dep. at p. 22; ECF No. 93-21, Molnar April 2017 Firearms Identification Report.) The Wayne County Court noted that Molnar’s “inconclusive comparative findings … could not corroborate DPD’s match, but his classification of the spent projectiles was largely consistent with that reported by the DPD Lab –

the spent projectiles were members of the .38 with traces of lands and grooves.” (Stip’d Order Granting Def.’s Successive Mot. for Relief, ¶ 15.)

However, after submitting his findings to a supervisor, Molnar was instructed to: (1) go through his measurements and make any more specific classification findings, if possible, on the individual bullets; (2) utilize an Association of Firearm and Tool Mark Examiners (“AFTE”) Chart; and, (3) conduct an analysis of the evidence bullets to FBI General Rifling Characteristics (“GRC”) Standards. (Molnar Dep. at pp. 58, 72-73; Stip’d Order Granting Def.’s Successive Mot. for Relief, ¶¶ 17-18.) When he did so, Molnar again found that the slug removed from the head wound (Slug #1, ET#923409) was too distorted to identify any number of lands and grooves and remained “inconclusive.” But Molnar was able to make a positive classification that the second evidence bullet (ET#923410) has five lands and grooves with a right twist (a “5R” classification). (Molnar Dep. at p. 31; ECF No. 93-23, Molnar May 2017 Corrected Firearms Identification Report.) Molnar testified, based on his examination of the evidence bullets in April of 2017, that the evidence bullet (classified as “5R”) did not come from the Rossi handgun (classified as “6R”). (Molnar Dep. at p. 31.)

On May 26, 2017, the Wayne County Circuit Court granted Ricks’ Successive Motion for Relief from Judgment, vacated Ricks’ conviction and judgment, and ordered a new trial. (Stip’d Order Granting Def.’s Successive Mot. for Relief, at p.

4.) An Order of Nolle Prosequi was subsequently entered on June 1, 2017, and the case against Ricks was dismissed with prejudice. (ECF No. 91-92.) Plaintiffs filed the instant action on August 23, 2017. (ECF No. 1.)

F. Plaintiffs' Firearms Toolmark Experts

1. David Balash

David Balash, a former firearms identification expert for the Michigan State Police, examined the evidence bullets on November 15, 2017, and issued an expert report on June 18, 2018. (ECF No. 93-14, Balash Report.) Balash states that he was asked to determine: (1) the General Rifling Characteristics (“GRC”) of the evidence bullets; (2) whether the two bullets were fired from the same gun; and (3) whether “any competent Firearms Examiner, acting in good faith, could reach the same conclusions as the defendants, David Pauch and Robert Wilson.” (*Id.* at pp. 2-3.)

Balash states that when he was shown photographs of the evidence bullets, he “immediately knew/identified the bullets as having 5 lands and grooves with a right twist rifling.” (*Id.* at p. 3.) He concluded, on examination of the bullets, that although they were “badly damaged,” they “both clearly display class rifling specifications of 5 land[s] and groove[s] with a right twist rifling.” (*Id.* at pp. 3-4.) However, “[d]ue to the damage sustained to these bullets, [Balash] did not attempt to identify them with each other without a suspect firearm from which [he] could obtain pristine tests [sic] shots for that comparison.” (*Id.* at p. 4.)

Balash noted that the Rossi handgun was listed as having “class rifling specifications of 6 lands and grooves with a right twist,” and he opined that “[t]he Rossi revolver recovered on this complaint in 1992 could not, and did not, fire the two evidence bullets on this case.” (*Id.*) He further opined that “any qualified firearms examiner should have told the submitting investigator that he had the wrong gun immediately upon receipt of this evidence,” and:

[T]he fact that 2 Detroit Police Department Firearms Examiners positively identified both of the evidence fired bullets, which display class rifling specifications of 5 lands and grooves with a right twist to a firearm that is rifled 6 lands and grooves with a right twist rifling can only happen if both examiners are totally incompetent or the wrong conclusion was intentional. There is no other category for this result. No competent Firearms Examiner, acting in good faith, would ever reach the same conclusions as Pauch and Wilson.

(*Id.* at 4-5.)

Balash similarly testified in his deposition that the evidence bullets are classified as “5-Right” (or “5R”) while the Rossi handgun is classified as a “6-Right” (or “6R”), and that a bullet with 5R characteristics cannot have been fired from a gun with 6R characteristics. (ECF No. 93-12, Balash Deposition Tr. at pp. 100-01.) He further testified that a positive identification (or “match”) between the evidence bullets and the Rossi handgun is “exceptionally unbelievable” and could only have been the result of gross incompetence or intentional false conclusion. (*Id.* at pp. 57, 67-68, 97.)

2. David Townshend

David Townshend was a firearms examiner with the Michigan State Police Firearms-Toolmark and Explosive Identification Unit from 1969 to 1989, and he has worked as an independent firearms examiner since that time. (ECF No. 98-11, David Townshend C.V.)

Townshend stated in his July 8, 2015 Affidavit that the bullets provided to him in 1992 by Defendant Stawiasz were not the same “evidence bullets” he saw in photographs in April 2015. (Townshend Aff. at p. 3.) Townshend states that he examined the actual evidence bullets for the first time on April 23, 2018 (Townshend Dep. at p. 204), and he authored an expert report on June 16, 2018. (ECF No. 93-11, Townshend 6/16/18 Report.)

On examination, Townshend weighed each bullet and measured the width of a land and groove on each bullet. (*Id.* at p. 1.) He then opined in his report that the evidence bullets “exhibit class rifling characteristics of 5 lands and grooves with a right twist.” (*Id.* at pp. 1-2.) He compared the two evidence bullets, determined that they “exhibit the presence of several matching individual characteristics” and thus “were probably fired from the same revolver,” but that “without having the revolver to fire test shots, it is not possible to make a positive identification.” (*Id.* at p. 2.)

Townshend then opined that “the 5-shot Rossi revolver with serial number D373334 has class rifling characteristics of 6 lands and grooves with a right twist

and could not have fired the 2-38 Special caliber fired bullets identified as ET#923409 and ET#923410.” (*Id.*)

According to Townshend, the “misidentification” of the evidence bullets as having been fired by the Rossi handgun is a “catastrophic error” that “would never be made by a competent qualified firearms examiner, let alone two firearm examiners,” and that mistake “could only have been caused by incompetency of the firearms examiners, or a deliberate attempt to mislead on the part of” Defendants Pauch and Wilson. (*Id.* at p. 4.) In fact, Townshend testified, “a couple minute examination” of the bullets would have yielded a conclusion that the “rifling doesn’t line up, there’s – there’s no way that the lands and grooves [on the evidence bullets and test-fired bullets] line up to where could be fired from the same gun.” (Townshend Dep. at pp. 263-64.)

G. Defendants’ Firearms Toolmark Expert: Jay Jarvis

Jay Jarvis is a forensic firearms expert who spent 32 years with the Georgia Bureau of Investigations (“GBI”) as an expert in firearms identification, and he was the Director of the American Society of Crime Laboratory Directors. (ECF No. 92-26, Jarvis C.V.)

Jarvis examined the evidence bullets on November 27, 2017 and issued his “Official Report” on November 30, 2017. (ECF No. 98-14, Jarvis Official Rpt.) Jarvis weighed and measured “the best available land and groove impressions” on

each evidence bullet. (*Id.* at pp. 1-2.) In his report, Jarvis explained that “[d]ue to damage, the rifling characteristics [of the two evidence bullets] were determined by dividing the bullet circumference by the combined widths of the best available land and groove impressions.” (*Id.* at p. 2.) He concluded that:

The item 1 bullet from the decedent’s head was compared microscopically with the item 2 bullet from the decedent’s back. There were sufficient corresponding individual characteristics on both the land and groove impressions on multiple areas of the bullets to conclude the two bullets were fired from the same firearm barrel.

Based on data in the 2010 version of the General Rifling Characteristics File published by the FBI Laboratory and the undersigned’s previous experience, the rifling characteristics of five lands and grooves with a right twist exhibited on the item 1 and 2 bullets are commonly found in Smith & Wesson, Ruger, and Taurus .38 Special and .357 Magnum revolvers. This does not preclude the possibility that a firearm produced by a different manufacturer with the same rifling characteristics could have fired the two bullets.

(*Id.* at p. 2.)

Jarvis subsequently testified in his deposition that the evidence bullets are classified as “5-Right,” that a bullet with “5R” characteristics cannot have been fired from a gun with “6R” characteristics, and that “based on [his] experience, … every Rossi [handgun] that [he has] ever seen has six lands and grooves with a right twist.” (ECF No. 98-7, Jarvis Deposition Tr. at pp. 45, 54.) He further testified that he “would expect that someone who was competent would not have made” the error Pauch and Wilson did in finding that the 5R evidence bullets were fired from a 6R gun, and that he would be “very shocked that two individuals that went through the

entire process could come to the same wrong conclusion.” (*Id.* at pp. 57-58.) He stated that such an error is “one of two things, either they’re – it was a horrible mistake or it was deliberate, I don’t know of any other way it can be.” (*Id.* at p. 58.)

H. Procedural History

On February 6, 2019, Defendants filed a Motion to Strike David Townshend, David Balash, and Dean Molnar as Expert Witnesses. (ECF No. 93, Defs.’ Mot. Strike.) Plaintiffs filed a response in opposition to Defendants’ motion on March 6, 2019 (ECF No. 98, Pls.’ Resp.), and Defendants filed a reply brief in support of their motion on March 27, 2019 (ECF No. 100, Defs.’ Reply).

II. LEGAL STANDARD

“Admissibility of expert testimony is governed by Federal Rule of Evidence 702 and informed by the seminal case applying Rule 702, *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 113 S.Ct. 2786, 125 L.Ed.2d 469 (1993).” *In re Southeastern Milk Antitrust Litigation*, 739 F.3d 262, 276 (6th Cir. 2014). Fed. R. Evid. 702 provides:

A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if:

- (a) the expert’s scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;
- (b) the testimony is based on sufficient facts or data;

- (c) the testimony is the product of reliable principles and methods; and
- (d) the expert has reliably applied the principles and methods to the facts of the case.

Fed. R. Evid. 702.

“[T]he rules of evidence - especially Rule 702 - do assign to the trial judge the task of ensuring that an expert’s testimony both rests on a reliable foundation and is relevant to the task at hand.” *Daubert*, 509 U.S. at 597. The trial court’s “gatekeeping” task with respect to expert testimony applies not just to scientific evidence, as was at issue in *Daubert*, but to all types of specialized knowledge presented through an expert witness. *Kumho Tire Co., Ltd. v. Carmichael*, 526 U.S. 137, 148-49 (1999). “”[T]he relevant reliability concern may focus upon personal knowledge or experience . . . [as] there are many different kinds of experts, and many different kinds of expertise.” *Id.* at 150. The Court must analyze separately the proposed expert’s qualifications, reliability and helpfulness.

The Sixth Circuit has noted that absolute certainty is not required of an expert but that sheer speculation, regardless of the qualifications of the speculator, lacks sufficient reliability:

Rule 702, we recognize, does not require anything approaching absolute certainty. See *Daubert*, 509 U.S. at 590, 113 S.Ct. 2786. And where one person sees speculation, we acknowledge, another may see knowledge, which is why the district court enjoys broad discretion over where to draw the line.

Tamraz v. Lincoln Elec. Co., 620 F.3d 665, 671-72 (6th Cir. 2010).

“The task for the district court in deciding whether an expert’s opinion is reliable is not to determine whether it is correct, but rather to determine whether it rests upon a reliable foundation, as opposed to, say, unsupported speculation.” *In re Scrap Metal Antitrust Litig.*, 527 F.3d 517, 529–30 (6th Cir. 2008). “As gatekeeper, the trial court only determines the admissibility of expert evidence; the jury determines its weight. The court’s focus is ‘solely on principles and methodology, not on the conclusions that they generate.’” *United States v. Stafford*, 721 F.3d 380, 393-94 (6th Cir. 2013) (quoting *Daubert*, 509 U.S. at 595) (alterations in original). “[R]ejection of expert testimony is the exception, rather than the rule.” *In re Scrap Metal*, 527 F.3d at 530. Testimony based on allegedly erroneous facts will generally be permitted “when there is some support for those facts in the record.” *Id.*

Federal Rule of Civil Procedure 26(a)(2)(B) requires an expert report to contain:

- (i) a complete statement of all opinions the witness will express and the basis and reasons for them;
- (ii) the data or other information considered by the witness in forming them;
- (iii) any exhibits that will be used to summarize or support them;
- (iv) the witness's qualifications, including a list of all publications authored in the previous 10 years;

(v) a list of all other cases in which, during the previous four years, the witness testified as an expert at trial or by deposition; and

(vi) a statement of the compensation to be paid for the study and testimony in the case.

Fed. R. Civ. P. 26(a)(2)(B). An expert report fails to comply with subsection (2)(B)(i) if it provides only “cursory support” for the opinions expressed. *R.D. Olmstead, Inc. v. CU Interface, LLC*, 606 F.3d 262, 271 (6th Cir. 2010). “[A]n expert opinion must ‘set forth facts’ and, in doing so, outline a line of reasoning arising from a logical foundation.” *Id.* (quoting *Brainard v. Am. Skandia Life Assur. Corp.*, 432 F.3d 655, 657 (6th Cir. 2005)). “Under Rule 26(a), a ‘report must be complete such that opposing counsel is not forced to depose an expert in order to avoid an ambush at trial; and moreover the report must be sufficiently complete so as to shorten or decrease the need for expert depositions and thus to conserve resources.’” *Id.* (quoting *Salgado v. Gen. Motors Corp.*, 150 F.3d 735, 742 n. 6 (7th Cir. 1998)). “Expert reports must include ‘how’ and ‘why’ the expert reached a particular result, not merely the expert’s conclusory opinions.” *Olmstead*, 606 F.3d at 271 (internal quotation marks and citations omitted).

III. ANALYSIS

The Court notes, initially, that the expert opinions at issue here do not attempt to opine (as Defendants Pauch and Wilson did in 1992) as to whether the evidence bullets in this case positively “match” a specific gun, like the Rossi handgun. Indeed,

they cannot as the Rossi handgun was destroyed by the Michigan State Police after Ricks' appeal and initial motion for relief from judgment were denied and thus was not available to these experts for a comparison or test-firing in 2017 and 2018.

Rather, these experts principally opine, based on their examination of the evidence bullets, that the evidence bullets are classified as Class 5R, and that those bullets thus could not have been fired by a handgun classified as a Class 6R gun. The Rossi handgun at issue was classified as a Class 6R revolver by Pauch and Wilson, and thus the Rossi handgun did not fire the evidence bullets.

A. Overview of Firearms Identification

“Forensic toolmark identification is a discipline that is concerned with the matching of a toolmark to the specific tool that made it. Firearm identification is a specialized area of toolmark identification dealing with firearms, which involve a specific category of tools.” *United States v. McCluskey*, No. 10-2734, 2013 WL 12335325, at *3 (D.N.M. Feb. 7, 2013) (citation omitted). “Toolmark identification is based on the theory that tools used in the manufacture of a firearm leave distinct marks on various firearm components, such as the barrel, breech face, or firing pins ... [and] that the marks are individualized to a particular firearm through changes the tool undergoes each time it cuts and scrapes metal to create an item in the production of the weapon.” *Id.* at *4; see also *United States v. Johnson*, No. (S5) 16 Cr. 281 (PGG), 2019 WL 1130258, at *5 (S.D.N.Y. Mar. 11, 2019) (“[T]he subset

of toolmark analysis focused on firearms is concerned with matching the marks that are transferred to the surface of ammunition – bullets or cartridge casings – when a firearm is discharged to a specific firearm.”). The field of firearms examination is based on the theory that some of these unique microscopic markings will be transferred to a bullet fired from that gun. *See id.* Specifically,

When a gun is fired, the inner barrel of the gun imparts “rifling” on the bullet. The barrel of a gun is manufactured to impart a twist on a bullet as it travels, to ensure firing accuracy. The inside of a gun barrel is imprinted with cuts running the length of the barrel. The cuts within the barrel are called “grooves” and the raised surfaces are called “lands.” Those rifling characteristics create marks on the bullet as it travels down the barrel. The raised lands cut into the surface of the bullet. Likewise, the bullet surface expands to fill the recessed grooves. The corresponding impressions left on the bullet as it travels through the barrel are depressed “land impressions” and raised “groove impressions.” The twist imparted on a bullet can be either left or right, depending on the direction of the lands and grooves.

United States v. Diaz, No. CR 05-00167 WHA, 2007 WL 485967, at *1 (N.D. Cal. Feb. 12, 2007). Because the metal from the barrel makes the same number of lands and grooves in the softer bullet, both barrel and bullet have the same number of lands and grooves. *See id.* (“[I]f the bullet has six land and groove impressions, it can only have been fired from a gun barrel that has six lands and grooves.”).

There are three types of characteristics observed by firearms examiners:

(1) Class characteristics: i.e., the weight or caliber of the bullet, the number of lands and grooves, the twist of the lands and grooves, and the width of the lands

and grooves, that appear on all bullet casings fired from the same type of weapon and are predetermined by the gun manufacturer;

(2) Individual characteristics: unique, microscopic, random imperfections in the barrel or firing mechanism created by the manufacturing process and/or damage to the gun post-manufacture, such as striated and/or impressed marks, unique to single gun; and

(3) Subclass characteristics: characteristics that exist, for example, within a particular batch of firearms due to imperfections in the manufacturing tool that persist during the manufacture of multiple firearm components mass-produced at the same time.

See id. at *2; *Johnson*, 2019 WL 1130258, at *7.

Pursuant to the Association of Firearms and Toolmark Examiners (the “AFTE”) Theory of Identification as it Relates to Toolmarks, a qualified examiner can determine whether two bullets were fired by the same gun by comparatively examining bullets and determining whether “sufficient agreement” of toolmarks exist, defined as “significant duplication of random toolmarks as evidence[d] by the correspondence of a pattern or combination of patterns of surface contours.” (*See AFTE Theory of Identification as it Relates to Toolmarks, Ex. A to Defs.’ Mot, ECF No. 93-2.*) If there is significant similarity in the individual markings, the examiner can conclude that the bullets were fired by the same firearm. However, the marks

need not be identical. *Diaz*, 2007 WL 485967, at *3; *see also McCluskey*, 2013 WL 12335325 at *4 (“Sufficient similarity exists when the casings, viewed by a trained and experienced firearms examiner, evince sufficient duplication of markings that they can be considered individual characteristics, and the likelihood that another gun could have made them is so remote that it can be discounted.”).

Toolmark analysis “begins with an evaluation of the class characteristics of the bullets and casings.” *Johnson*, 2019 WL 1130258, at *7 (quotation marks and citation omitted). “While a match between ballistics evidence and a particular firearm cannot be premised on ‘class characteristics,’ *a match can be ruled-out on the basis of class characteristics.*” *Id.* (emphasis added). “Where ballistics evidence shares the same class characteristics, the [examiner] will go on to examine the ballistics evidence under a comparison microscope” “to try to determine if they were fired from the same firearm based on the individual characteristics.” *Id.* at *8 (explaining that “[t]he objective is to determine whether the individual characteristics on two [bullets] ‘line up’ with one another.”). The AFTE method of firearm toolmark identification “enables opinions of common origin to be made when the unique surface of two toolmarks are in ‘sufficient agreement.’” *Id.* (quotation marks and citation omitted). “AFTE acknowledges that ‘[c]urrently the interpretation of individualization/identification is subjective in nature,’ although

‘founded on scientific principles and based on the examiner’s training and experience.’” *Id.*

B. Reliability of Firearms Toolmarks Identification

1. Defendants Challenge the Reliability of Firearms and Toolmark Identification in General

Defendants begin by arguing that the field of firearms identification overall is subjective and based on the expertise of the examiner and therefore unreliable under *Daubert* and *Kumho Tire*. (Defs.’ Mot. at pp. 12-14.)² In support of this argument, Defendants rely on seven cases which they assert identify “failings in the field [of firearm identification].” (*Id.* at pp. 12-13) However, while those courts recognized the issue of “subjectivity” involved in firearms analysis and discussed issues with firearms identification testing *as applied to the expert testimony in those cases*, not one of those courts found that firearms identification or toolmark testimony was inherently unreliable or inadmissible under *Daubert* and *Kumho Tire*. See *United States v. Monteiro*, 407 F. Supp. 2d 351, 364 (D. Mass. 2006) (“For decades, both before and after the Supreme Court’s seminal decisions in *Daubert* and *Kumho Tire*,

² The Court notes that the criticisms of firearms identification as being “subjective” focuses on the inherent subjectivity in an examiner’s determination that bullets “match” a particular firearm based on the examiner’s comparison of individual characteristics of two bullets. The three experts at issue in this motion, Molnar, Townshend and Balash, do not render such an opinion. Instead, the conclusions reached by those examiners in this case—that the evidence bullets have Class 5R class characteristics—is an objective determination by those experts, and thus not subject to the Defendants’ criticisms regarding “subjectivity.”

admission of the type of firearm identification testimony challenged by the defendants has been semi-automatic; *indeed, no federal court has yet deemed it inadmissible.*” (emphasis added); *United States v. Green*, 405 F. Supp. 2d 104, 108 (D. Mass. 2005) (noting that “*every single court post-Daubert* has admitted this [firearms identification] testimony, sometimes without any searching review, much less a hearing”) (emphasis in original); *United States v. Glynn*, 578 F. Supp. 2d 567, 574 (S.D.N.Y. 2008) (recognizing that while “ballistics examination not only lacks the rigor of science but suffers from greater uncertainty than many other kinds of forensic evidence[,]” “its methodology has garnered sufficient empirical support as to warrant its admissibility.”); *United States v. Wrensford*, No. 2013-0003, 2014 WL 3715036, at *13 (D. V.I. July 28, 2014) (finding “consistent with other courts – that the concerns with subjectivity as it may impact testability, standards and protocols do not tip the scales against admissibility”); *Diaz*, 2007 WL 485967, at *11 (“The practiced eye of a firearms examiner can render reliable opinions based on an evaluation of the evidence” notwithstanding that “the AFTE theory lacks an objective standard”); *United States v. Willock*, 696 F. Supp. 2d 536, 571 (D. Md. 2010) (“find[ing] that the theory underlying firearms-related toolmark identification has gone through sufficient testing and publication of studies regarding its reliability and validity to establish a ‘baseline level of credibility’ that sufficiently trained examiners may be able to identify ‘matchable marks’ existing on bullets or cartridges

and that these matches are relevant to determining whether the bullets or cartridges were fired from the same firearm"); *United States v. Alls*, No. CR2-08-223 (S.D. Ohio Dec. 7, 2009) ("Given that no court has ever found Firearm and Toolmark Identification evidence to be inadmissible under *Daubert*, it is clear that firearm identification testimony meets the *Daubert* reliability standards and can be admitted as evidence.") (attached as Ex. O to Defs.' Mot., ECF No. 93-16 at p. 6).

The Supreme Court in *Daubert* provided a list of specific factors bearing on reliability that trial courts could consider in executing their gatekeeping obligation, summarized as follows:

- (1) whether a theory or technique has been or can be tested; (2) whether the theory or technique has been subjected to peer review and publication; (3) the technique's known or potential rate of error; (4) the existence and maintenance of standards controlling the technique's operation; and (5) whether a particular technique or theory has gained general acceptance in the relevant scientific community.

See Daubert, 509 U.S. at 593-94. "These factors, however, are not definitive or exhaustive, and the trial judge enjoys broad latitude to use other factors to evaluate reliability." *United States v. Mooney*, 315 F.3d 54, 62 (1st Cir. 2002) (citing *Kumho Tire*, 526 U.S. at 153).

Numerous courts, including those cited by Defendants and discussed above, have engaged in a thorough evaluation of the *Daubert* factors in cases where a party seeks to admit firearms and toolmark identification testimony and have uniformly found the AFTE theory of firearms and toolmark identification to be reliable under

Daubert, and even though some courts found that the determination of whether “sufficient agreement” exists involves subjective qualitative judgments by examiners and that the AFTE theory lacks objective standards (the fourth *Daubert* factor), the courts have found that the AFTE method: (1) can be and has been frequently tested; (2) has been subjected to peer review and publication; (3) has a very low error rate, to the extent it is known; and (4) has been widely accepted in the forensic scientific community, and therefore is admissible under Rule 702, *Daubert*, and *Kumho Tire*. See, e.g., *Monteiro*, 407 F. Supp. 2d at 366-72 (“Based on the factors outlined in *Daubert* and *Kumho Tire*, the Court concludes that the methodology of firearms identification is sufficiently reliable.”); *Diaz*, 2007 WL 485967, at *5-11; *Wrensford*, 2014 WL 3715036, at *11-18; *United States v. Romero-Lobato*, 379 F. Supp. 3d 1111, 1118-22 (D. Nev. 2019); *Johnson*, 2019 WL 1130258, at *14-19; *McCluskey*, 2013 WL 12335325, at *5-8; *United States v. Otero*, 849 F. Supp. 2d 425, 431-35 (D.N.J. 2012), aff’d, 557 F. App’x 146 (3d Cir. 2014). Indeed, the Court is not aware that any federal court that found firearm and toolmark identification to be unreliable under *Daubert* and *Kumho Tire*. See, e.g., *Romero-Lobato*, 379 F. Supp. 3d at 1117 (stating that “no federal court (at least to the Court’s knowledge) has found the AFTE method to be unreliable under *Daubert*”); *United States v. Davis*, No. 4:18-cr-00011, 2019 WL 4306971, at *4 (W.D. Va. Sept. 11, 2019) (recognizing that “no federal court has outright barred

testimony from a qualified firearm or toolmark identification expert” although “[m]any of these courts admitted the proffered testimony only under limiting instruction restricting the degree of certainty to which firearm and toolmark identification specialists may express their identifications.”).

While courts have concluded that the methodology of firearms identification is sufficiently reliable, some of those same courts have placed some restrictions on the opinions the experts were permitted to offer, explaining that “[b]ecause an examiner’s bottom line opinion as to an identification is largely a subjective one, there is no reliable statistical or scientific methodology which will currently permit the expert to testify that it is a ‘match’ to an absolute certainty, or to an arbitrary degree of statistical certainty[,]” and thus “[a]llowing the firearms examiner to testify to a reasonable degree of ballistic certainty permits the expert to offer her findings, but does not allow her to say more than is currently justified by the prevailing methodology.” *Monteiro*, 407 F. Supp. 2d at 372; *see also Green*, 405 F. Supp. 2d at 124 (allowing expert firearms identification testimony but declining to allow expert “to conclude that the match he found *by dint of the specific methodology he used* permits ‘the exclusion of all other guns’ as the source of the shell casings” or that the spent shell casing came from the gun at issue, based on the court’s concern about the methodology of the expert “in the case at bar”) (emphasis added); *Glynn*, 578 F. Supp. 2d 574-75 (allowing examiner “to testify only that a firearms match

was ‘more likely than not’”); *Diaz*, 2007 WL 485967, at *11 (allowing the examiner to testify “that cartridge cases or bullets were fired from a particular firearm ‘to a reasonable degree of ballistic certainty’”); *Willock*, 696 F. Supp. 2d at 546-47 (expert would not state his conclusions with any degree of certainty); *Alls*, No. CR2-08-223 (declining to permit the expert to testify that “the casings are attributable to a single firearm to the exclusion of all other firearms”) (ECF No. 93-16 at 7).³

However, as recently noted by one district court, “it is important to note that the courts that imposed limitations on firearm and toolmark expert testimony were the exception rather than the rule. Many courts have continued to allow unfettered testimony from firearm examiners who have utilized the AFTE method.” *Romero-Lobato*, 379 F. Supp. 3d at 1117 (internal citation to David H. Kaye, *Firearm-Mark Evidence: Looking Back and Looking Ahead*, 68 CASE W. RES. L. REV. 723, 734 (2018) omitted). Because Molnar, Townshend and Balash do not offer any opinions of a “match” between the evidence bullets and a particular gun, the limitations discussed above are not applicable to their opinion testimony.

³ The Court notes, however, that Pauch was permitted to offer unlimited testimony in Ricks’ criminal trial, that the match between the evidence bullets he examined and the test-fired bullets was like a “fingerprint” and that “[t]hese bullets were fired from this weapon and no other weapon.” (Trial Tr. Vol. 3, Pauch Testimony at pp. 52-53.)

2. Defendants' Challenges Based on Scientific Reports

Defendants also rest their challenges to the experts' opinions on reports by the National Research Council (the "NRC") and the President's Council of Advisors on Science and Technology ("PCAST"). (Defs.' Mot. at 13-14.)⁴ Specifically, Defendants claim that "[t]he scientific community has also questioned the field of firearms identification," relying on: (1) the 2008 NRC Report, *Ballistic Imaging*, available at <https://www.nap.edu/catalog/12162/ballistic-imaging> (Ch. 3 excerpt at Ex. Q to Defs.' Mot., ECF No. 93-18); (2) the 2009 NRC Report, *Strengthening Forensic Science in the United States: A Path Forward*, available at <https://www.nap.edu/catalog/12589/strengthening-forensic-science-in-the-united-states-a-path-forward> (Ch. 3 excerpt at Ex. R to Defs.' Mot., ECF No. 93-19); and (3) the 2016 PCAST Report, *Forensic Science in Criminal Courts: Ensuring Scientific Validity of Feature-Comparison Methods*, available at https://obamawhitehouse.archives.gov/sites/default/files/microsites/ostp/PCAST/pcast_forensic_science_report_final.pdf (Excerpts at Ex. S to Defs.' Mot., ECF No. 93-20).

Plaintiffs do not address these reports in their Response. However, as discussed in more detail below, these same reports have been addressed by a number

⁴ Defendants also contend that the legal community has criticized the field of firearm identification, asserting simply that one author has opined that "'because of systemic scientific problems, firearms and toolmark identifications should be inadmissible

of courts, which have found the reports do not suggest that firearm and toolmark analysis is unreliable for purposes of expert evidence in court. *See, e.g., Romero-Lobato*, 379 F. Supp. 3d at 1117-18; *Johnson*, 2019 WL 1130258, at *10-11. The Court agrees with those determinations.

And, more importantly, while the reports question the reliability of firearms identification based on the subjective nature of a determination of a “match” between a bullet and a specific firearm, that is not the determination made by Molnar, Townshend and Balash in this case. Rather, their examination of the evidence bullets was limited to determining the class characteristics of those bullets, an “objective” determination. The ability of a forensic firearms examiner to determine basic class characteristics has not been challenged by these reports.

across-the-board.” (Defs.’ Mot. at p. 13, citing Adina Schwartz, *A Systemic Challenge to the Reliability and Admissibility of Firearms and Toolmark Identification*, 6 Colum. Sci. & Tech. L. Rev. 2, 6 (2005) (attached as Ex. P at 93-17).) However, Professor Schwartz’s opinions have been given short shrift by the courts, who have pointed out “serious criticisms, not just of [her] conclusions, but of the integrity of her scholarship,” given that she mis-quoted a study’s “ultimately unproven hypothesis as its conclusion” in her article. *See, e.g., Otero*, 849 F. Supp. 2d at 437; *see also McCluskey*, 2013 WL 12335325, at *9 (rejecting Professor Schwartz’s affidavit on the admissibility of firearm identification, finding that she lacked qualifications to critique the findings of the government’s firearms examiners and that “the accuracy and honesty of [her] scholarly analysis has been questioned by this Court”) (citing *United States v. Taylor*, 704 F. Supp. 2d 1192, 1200 (D.N.M. 2009)). Accordingly, Defendants’ criticism on this ground can be denied.

a. 2008 NRC Report

According to Defendants, the 2008 NRC Report “found: ‘The validity of the fundamental assumptions of uniqueness and reproducibility of firearms-related toolmarks has not yet been fully demonstrated.’” (Defs.’ Mot. at p. 13, citing 2008 NRC Report at p. 81.) However, as one court recently explained, while the 2008 NRC Report admittedly “highlights the subjective nature of a firearms examiner’s analysis” and “questions a basic assumption underlying the firearms identification discipline: that individual firearms produce unique toolmarks that can be traced to a specific weapon,” “the 2008 [NRC] Report addresses ballistic imaging and not toolmark identification”⁵ and “the authors of the 2008 [NRC] Report make clear that their study ‘*is neither a verdict on the uniqueness of firearms-related toolmarks generally nor an assessment of the validity of firearms identification as a discipline.*’” *Johnson*, 2019 WL 1130258, at *10 (citing 2008 NRC Report at p. 18 (emphasis in original); *id.* at p. 20 (“[T]he proposal for this study explicitly precluded the committee from assessing the admissibility of forensic firearms evidence in court, either generally or in specific regard to testimony on ballistic imaging comparisons.... [W]e do not in any way offer a determination of whether ballistics evidence should or should not be admissible in court proceedings.” (emphasis in original)).

b. 2009 NRC Report

Defendants also contend that the National Research Council criticized the field of firearms and toolmarks identification in 2009 “by concluding toolmark and firearms identification is introduced in trials without scientific validation, determination of error rates, or reliability testing to explain the limits of the discipline.” (Defs.’ Mot. at pp. 13-14). The 2009 NRC Report addressed forensic evidence broadly, including DNA, fingerprinting, and toxicology, and did not focus on firearms and toolmark identification. *See* 2009 NRC Report. Courts have addressed the criticisms in this 2009 NRC Report, that firearms and toolmark examination is subjective and lacks a precisely defined protocol, with examiners relying on their training and experience to determine if there is a “sufficient agreement” (i.e. match) between the mark patterns on the casing or bullet and the firearms’ barrel, but have found that those criticisms did not render firearms and toolmark identification evidence unreliable under *Daubert* and *Kumho Tire*. *See Johnson*, 2019 WL 1130258, at *11; *Romero-Lobato*, 379 F. Supp. 3d at 1117.

c. 2016 PCAST Report

Finally, Defendants also cite to the 2016 PCAST Report as finding that

⁵ The *Johnson* court explained that “[b]allistic imaging involves a comparison of computerized images of bullets and cartridge casings, while toolmark identification involves direct microscopic comparison of toolmarks.” *Johnson*, 2019 WL 1130258 at *10 n.4.

“firearms analysis currently falls short of the criteria for foundational validity” and recommending that “[i]f firearms analysis is allowed in court, the scientific criteria for validity as applied should be understood to require clearly reporting the error rates seen in appropriately designed black-box studies.” (Defs.’ Mot. at p. 14, citing PCAST Report at pp. 11-12.) Again, courts have addressed this Report and noted that while the PCAST Report concludes that “firearms analysis currently falls short of the criteria for foundational validity, because there is only a single appropriately designed study to measure validity and estimate reliability,” the Report “makes no recommendation as to the admissibility of such evidence in legal proceedings; ‘[w]hether firearms analysis should be deemed admissible based on current evidence is a decision that belongs to the courts.’” *See Johnson*, 2019 WL 1130258, at *11 (citing PCAST Report at p. 112.) The *Romero-Lobato* court further noted that, after its publication, “the PCAST Report was criticized by a number of entities, including the DOJ, FBI, ATF, and AFTE” because of “its lack of transparency and consistency in determining which studies met its strict criteria and which did not and its failure to consult with any experts in the firearm and tool mark examination field.” 379 F. Supp. 3d at 1118.

As the *Johnson* court found, courts that have reexamined the reliability of toolmark identification evidence based on review of the above scientific reports have admitted expert testimony concerning toolmark identification, rejecting arguments

that the above scientific reports rendered such evidence inadmissible. *Johnson*, 2019 WL 1130258, at *12-13 (collecting cases). The courts reasoned that the weaknesses in toolmark identification can be effectively explored on cross-examination, but also precluded the experts from expressing their opinions in terms of absolute scientific certainty. *Id.* at *13 (citations omitted); *see also United States v. Cerna*, No. CFR 08-0730 WHA, 2010 WL 3448528, at *4 (N.D. Cal. Sept. 1, 2010) (“These weaknesses, however, do not require the automatic exclusion of any expert testimony based on the AFTE theory. The weaknesses highlighted by the [2009 NRC Report] – subjectivity in a firearm examiner’s identification of a ‘match’ and the absence of a precise protocol – are concerns that speak more to an individual expert’s specific procedures or application of the AFTE theory, rather than the universal reliability of the theory itself.”). The Court agrees that these scientific reports do not justify striking the expert reports at issue in this Motion.

C. Qualifications of Townshend, Balash and Molnar

Defendants argue that Townshend, Balash and Molnar do not have the “training or the experience or the scientific, technical or other specialized knowledge that will help the jury in this case to understand the evidence or to determine a fact in issue,” and thus they are all unqualified to offer opinion testimony in the field of firearms identification. (Defs.’ Mot. at pp. 15-18.) Plaintiffs respond that all three experts “spent their careers as Michigan State Police firearms investigators doing

exactly the type of analysis that was performed in this case” and therefore are “eminently qualified to offer opinions regarding firearms identification.” (Pls.’ Resp. at pp. 12-14.)

To qualify as an expert under Rule 702, a witness must establish his or her expertise by reference to “knowledge, skill, experience, training or education.” *Pride v. BIC Corp.*, 218 F.3d 566, 577 (6th Cir. 2000). “It is well-settled that ‘trial judges have broad discretionary power in determining the qualification, and thus, admissibility, of expert witnesses.’” *Monteiro*, 407 F.Supp.2d at 373 (citations omitted). The Court finds that Townshend, Balash and Molnar are qualified to render their opinions in this case through their experience, training, knowledge, background, education and skill.

1. David Townshend

David Townshend is a former Michigan State Police (“MSP”) firearms identification expert who retired in 1989, after working for 20 years in the MSP Firearms, Toolmarks and Explosive Identification Unit. (Townshend CV.) According to his CV, while at MSP, Townshend conducted forensic analyses of firearms, firearms operation, tool mark identification, and firearm repair, among other duties. He also attended armorer training programs sponsored by firearm manufacturers and learned assembly and testing procedures directly from these manufacturers through visits to their facilities. He also taught courses on toolmark

and firearms identification, and qualified as an expert in firearms, firearms identification and toolmark identification in various state and federal courts. (*Id.* at pp. 1-4.)

After retiring from the MSP, Townshend has continued to conduct firearms and toolmark examinations, present expert witness testimony on firearms and toolmark identifications in criminal and civil matters, developed and taught courses in firearms and toolmark identification, and authored an article dealing with aspects of firearms and toolmark identification. (*Id.* at pp. 4-6.)

Defendants argue that Townshend is not qualified to offer expert testimony on the issue of firearms and toolmark identification because he has been retired from the MSP for about thirty years and has not received any education or proficiency testing since that time. (Defs.’ Mot. at pp. 15-16.) Defendants contend that Townshend works out of an uncertified laboratory in his daughter’s home, with no written protocols, and that Townshend has never been certified by the AFTE or any other professional organization. (*Id.*) In addition, Defendants note that Townshend did not know what a “subclass” characteristic is, did not calculate an error rate for his work, his results were not confirmed by a second examiner, and he did not use any mathematical calculations or AFTE Tables or FBI Tables in rendering his opinion in 2018. (*Id.*)

Defendants' criticisms of Townshend do not undercut his qualifications to render the opinions he offers in his June 16, 2018 Report. “[T]he text of Rule 702 expressly contemplates that an expert may be qualified on the basis of experience.” Fed. R. Evid. 702, advisory committee notes. Townshend’s resume demonstrates that he is highly trained and qualified by extensive work in his field for decades, both during his lengthy career with the MSP, including twenty years in the MSP Firearms, Toolmarks and Explosive Identification Unit, and his work as an independent firearm examiner since his retirement. Townshend applied the methods that he had used throughout his career to identify the toolmarks on the evidence bullets, using an industry-accepted microscope to conduct his examination, and using the same methodology for firearms examination that has been used by all examiners in this case. Defendants’ criticisms of Townshend’s “qualifications” go to the weight of his opinions, and not their admissibility. *See Monteiro*, 407 F. Supp. 2d at 373 (finding firearms identification expert qualified even though he “has no formal scientific training, is neither certified by, nor is he a member of any professional organizations, reads no literature in the field, and had not taken any proficiency testing at the time he performed the tests at issue in this case”); *Wrensford*, 2014 WL 3715036, at *10 (expert’s “actual or perceived shortcomings,” including “whether he understands how to distinguish between subclass and individual characteristics” are subjects of cross-examination and go to the weight of

the opinions and not their admissibility). And, significantly, Townshend arrived at the *same* conclusion as every other witness who examined the evidence bullets in this case after Ricks' conviction, including Defendants' expert—that the evidence bullets are characterized as Class 5R—and thus his results have in essence been “verified” by a second examiner. *See Monteiro*, 407 F. Supp. 2d at 374 (review and verification of an expert’s results by a second qualified examiner (here, “review by additional expert witnesses”) would render the expert’s testimony admissible under Rule 702).

2. David Balash

Defendants argue that David Balash is unqualified to offer opinion testimony in the field of firearms identification because he, like Townshend, has been long retired from the Michigan State Police and has not received any further education or proficiency testing since that time. (Defs.’ Mot. at p. 15.) Defendants further assert that Balash does not have licensing or certification records for himself or his home laboratory, that he is “presumably” not certified by AFTE, and he is not familiar with current Michigan State Police procedures for firearms identification. (*Id.* at p. 16.) Defendants also complain that Balash has not researched whether Rossi manufactured a “5-R gun,” he does not know what a “sub class” characteristic is, and he did not do any calculations to determine the number of lands and grooves on the evidence bullets and instead “eyeballed” it. (*Id.*) Defendants further contend

that Balash never conducted an error rate for his work and asserted there is none. (*Id.*)

As another court recently found, “[t]his criticism tends to understate Balash’s qualifications.” *See Sanford v. Russell*, 387 F. Supp. 3d 774, 784 (E.D. Mich. 2019) (Lawson, J.) David Balash’s curriculum vitae demonstrates that he enlisted with the Michigan State Police in 1966 and has over 20 years’ experience as a firearms examiner with the Michigan State Police in the Firearms, Toolmarks and Explosive Identification Unit in the Northville Forensic Laboratory, retiring in February 1992 with the rank of Detective Lieutenant. (ECF No. 98-10, David Balash CV.) The Northville lab “provided services free of charge for over 120 police agencies in Southeast Michigan” and “was one of the first A.S.C.L.A.D. Accredited laboratories in Michigan. (*Id.*)

Since his retirement, Balash continues to work as an Independent Firearms Examiner/Forensic Science Consultant, and from March 2000 to May 2001, he was also the Supervisor of the Oakland County Sheriff’s Department Crime Laboratory Firearms Identification Unit and was responsible for firearms examination training. (*Id.*) Balash has been qualified to render expert testimony in court matters on more than 350 occasions in various courts and asserts that he has “worked on thousands of cases that were submitted to the laboratory for analysis, as well as participat[ed] in hundreds of crime scene investigations.” (*Id.*) Plaintiffs assert that Balash is

qualified to render an opinion in this case based on his knowledge, skill, experience, training and education.

In *Sanford*, Judge Lawson found Balash to be “highly trained and qualified to render the [firearms identification] opinions that he offers by the extensive work in his field over a decades long career with the MSP and as an independent firearm examiner.” *See Sanford*, 387 F. Supp. 3d at 784-86. Judge Lawson noted that Balash’s “lack of a ‘degree in forensic science’” did not disqualify him from “testifying on matters within his practical knowledge and experience accumulated through his work,” noting that “he asserts that he applied methods of examination which, based on his extensive experience, are accepted in the field.” *Id.* at 785. The court concluded that “[t]he proposed testimony by David Balash on the subject of gunshot residue and firearms identification … satisfies Rule 702’s requirements,” and thus denied the defendant’s motion to exclude Balash’s testimony. *Id.* at 791.

That same result is called for here. As in *Sanford*, Defendants have simply “not pointed to anything in the record to call into any serious doubt the conclusion that Balash is highly trained and qualified to render the opinions that he offers[.]” *See Sanford*, 387 F. Supp. 3d at 785. Contrary to Defendants’ assertions that Balash just “eyeballed” the evidence bullets, he explained in his deposition that in addition to viewing the evidence bullets under a stereoscope, he weighed and measured the available lands and grooved on both bullets with a handheld micrometer and noted

those measurements in his records. (Balash Dep. at pp. 81-82.) Balash applied the methods that he has used throughout his career to identify the class characteristics of the evidence bullets. And, again, Balash's opinion that the evidence bullets are Class 5R bullets is the *same* conclusion reached by *every* expert who has examined those bullets.

Therefore, the Court finds that Balash is qualified to render his opinions in this matter based on his knowledge, skill, experience, training and education in the field, and Defendants' criticisms of Balash's qualifications go to the credibility and weight to be given to his testimony, and not its admissibility. *See Romero-Lobato*, 379 F. Supp. 3d at 1122-23 (holding firearms examiner qualified to testify because he had seven years of experience, had substantial training, attended related conferences and workshops, was a provisional member of the AFTE, and testified as an expert on firearms on multiple occasions); *United States v. Williams*, 506 F.3d 151, 161 (2d Cir. 2007) (holding that a firearm examiner was properly qualified to testify because she had 12 years of experience, substantial hands-on training, attended seminars on firearms identification, had previously testified as an expert witness, and had examined approximately 2,800 different types of firearms); *Monteiro*, 407 F. Supp. 2d at 373 (police sergeant was qualified as a ballistics expert despite lack of a college degree and scientific training when he had on the job

training by an experienced examiner, attended armorer schools, conducted hundreds of examinations, and passed a proficiency test).

3. Dean Molnar

Sgt. Molnar is currently employed by the Michigan State Police as a firearm and toolmarks investigator, and his work in this case was performed in his role as a State Police investigator, not as a retained expert.

According to his deposition testimony, Molnar has been employed with the MSP since December 2004 and as a firearms examiner in the MSP Firearms and Tool Mark Unit since 2009. (*Molnar Dep.* at pp. 8-9.) His training consisted of on-the-job training with “court-certified firearms examiner[s] for the Michigan State Police,” which he explained are examiners who have been trained and then certified as an expert “through the court systems,” as well as examiners from the National Forensic Science Technology Center. (*Id.* at pp. 8, 10.) He trained for approximately two years and then started testifying as an expert on firearms identification in 2011. (*Id.* at pp. 9-10.) Molnar states that he has been qualified to testify as an expert in 93 court cases, including in federal court, and that no judge has ever declined to recognize him as an expert in the field of firearm and toolmark identification. (*Id.* at pp. 9, 43-44.)

Defendants argue that Molnar is not certified in toolmark examination, and that while he admits that fundamental firearms examination involves comparison of

test-fired bullets with evidence bullets, he never examined the Ricks' Rossi handgun and could not say whether the evidence bullets were fired by any specific gun. (Defs.' Mot. at pp. 16-17.) However, Molnar did not offer any such opinion of a "match" between the evidence bullets and a particular gun.

Defendants also assert that Molnar's report does not indicate it was reviewed by anyone, and that while his first report stated that he could not make any conclusions about whether the evidence bullets had been fired from the same firearm, he subsequently amended his report to opine that one of the evidence bullets had five lands and grooves with a right twist. (*Id.*)

As above, Defendants' criticisms of Molnar's qualifications go to the weight and credibility of his opinions, not their admissibility. *See Romero-Lobato*, 379 F. Supp. 3d at 1122-23; *Williams*, 506 F.3d at 161; *Monteiro*, 407 F. Supp. 2d at 373 . Defendants have failed to show that Molnar is not qualified to opine that the evidence bullet is classified as Class 5R based on his knowledge, training and experience.

D. Whether the Opinions Are Based on Sufficient Fact/Data

Defendants argue that the opinions of Townshend, Balash and Molnar are not based on sufficient facts or data because those opinions are not based on an examination of a firearm. (Defs.' Mot. at pp. 18-22.) According to Defendants, the Association of Firearm and Tool Mark Examiners ("AFTE") is the "leading

professional organization in the field” and the AFTE Theory of Identification as it Relates to Toolmarks “is premised on the *comparison* of the known bullets with the unknown bullets.” (*Id.* at pp. 18, 20.)

Defendants further state that the Scientific Working Group for Firearms and Toolmarks (“SWGGUN”), formed by the National Institute of Justice, made recommendations for scientifically acceptable documentation in the field of firearms and toolmarks based on an “assum[ing] a *comparison* between the known and unknown bullets.” (*Id.* at p. 20.) Defendants conclude, therefore, that the “core of firearm toolmark examination is the comparison of (1) the firearm, (2) test-bullet markings known to be made by the firearm, and (3) evidence bullets from the crime scene.” (*Id.*)

Defendants contend that every examiner who compared the evidence bullets and the Rossi handgun found they were a match, but that Townshend’s new opinion, and Balash’s and Molnar’s opinions are not based on that comparison of the evidence bullets and the Rossi handgun, or a comparison of the evidence bullets to test fired bullets from the Rossi handgun. (*Id.* at p. 21.) Defendants conclude that Townshend’s, Balash’s and Molnar’s opinions are therefore not consistent with AFTE Theory or the recommendations from SWGGUM and thus “are not based on any facts or data, and they should be excluded as expert witnesses under Fed. R. Evid. 702(b).” (*Id.* at pp. 21-22.)

The Court finds Defendants' arguments irrelevant because the experts at issue here do not attempt to offer any opinion that the evidence bullets "match" any specific gun, and thus they were not required to compare the evidence bullets with any other "test-fired" bullets. Plaintiffs hit the nail on the head when they state in their Response that:

Defendants willfully confuse the process involved with "positively identifying" a bullet with a gun with the process of finding general characteristics of evidence bullets. They argue that, since the gun had been destroyed and could not be examined by any of the experts, the experts' results are "not based on sufficient facts and data." This characterization is incorrect.

(Pls.' Resp. at p. 14.) As Plaintiffs correctly explain, Molnar, Balash and Townshend do not opine that the evidence bullets were fired from a specific gun, but instead analyzed the characteristics of the evidence bullets (classifying them as Class 5R bullets). Townshend and Balash then go on to compare those Class 5R evidence bullets to the characteristics of the Rossi handgun (identified as Class 6R in the Pauch & Wilson Firearms Identification Report). They opine that Class 5R bullets cannot have been fired from a Class 6R gun. (Townshend 6/16/18 Report at p. 2; Balash Report at p. 4.)⁶

⁶ Molnar does not state this opinion in his Corrected Report (he only identifies the spine bullet as a Class 5R bullet), but he does agree in his deposition that "if the gun that was alleged to be the murder weapon was a 6-right classification, that [evidence Class 5R] bullet was not fired by that gun." (Molnar Dep. at p. 31.)

And, as Plaintiffs also correctly note, *all* current examiners have reached this same opinion, including Defendants' expert Jay Jarvis. (Pls.' Resp. at p. 15.) Jarvis further testified that identifying class characteristics like the number of lands and grooves is something learned early in firearms identification training. (Jarvis Dep. Tr. at pp. 32-34.)

Thus, Townshend (in his 2018 opinion), Molnar and Balash reached their conclusions by evaluating the evidence bullets (along with the record evidence, such as prior reports, deposition transcripts, etc.), which provided sufficient "facts and data" to support their opinions that the bullets are Class 5R. The Pauch & Wilson Firearm Identification Report classified the Rossi handgun as Class 6R. (Pauch & Wilson Firearm Id. Rpt.) The experts' experience and training supply the bases for their opinions (shared by all experts) that Class 5R bullets cannot have been fired from a Class 6R gun, such as the Rossi handgun (as classified by Pauch and Wilson).

Townshend further opined in his report that:

The misidentification of two fired bullets exhibiting class rifling characteristics of 5 lands and grooves with a right twist as having been fired from a revolver with 6 lands and grooves with a right twist is a catastrophic error. An error of this magnitude would never be made by a competent qualified firearms examiner, let alone two examiners.

In my opinion an error of this magnitude could only have been caused by incompetency of the firearms examiners, or a deliberate attempt to mislead on the part of the two Officers involved in this case.

(Townshend 6/16/18 Report at p. 4.)

Balash similarly opined:

In this examiner's opinion, the fact that 2 Detroit Police Department Firearms Examiners positively identified both of the evidence fired bullets, which display class rifling specifications of 5 lands and grooves with a right twist to a firearm that is rifled 6 lands and grooves with a right twist can only happen if both examiners are totally incompetent or the wrong conclusion was intentional. There is no other category for this result. No competent Firearms Examiner, acting in good faith, would ever reach the same conclusions as Pauch and Wilson.

(Balash 6/18/18 Report at p. 6.)⁷

Defendants do not specifically call out or address these opinions. However, these opinions are reasonably based on the experts' training and experience and thus admissible.

E. Whether the Opinions Reliably Apply Principles/Methods

Defendants assert that Molnar, Balash and Townshend all agree that they cannot identify whether the evidence bullets were fired by the Ricks' Rossi handgun without examining the specific handgun. (Defs.' Mot. at pp. 22-23.) That is undisputed. Defendants then again argue, however, that "[b]ecause they did not make a comparison of the Bennett bullets and the Ricks revolver, Townshend,

⁷ Again, Molnar does not offer this opinion in his Corrected Report, but he does agree in his deposition that it "should not happen" that a competent expert acting in good faith would identify a 5R bullet and a 6R bullet and say they were fired from the same gun. (Molnar Dep. at pp. 38-39.) Defendants' expert, Jarvis, similarly testified that he "would expect that someone who was competent would not have made that error" and that he would be "shocked that two individuals that went through the entire process could come to the same wrong conclusion." (Jarvis Dep. at pp. 57-58.)

Balash and Molnar were unable to create documentation that satisfies the industry standards or the standards for reliable expert testimony in the field of firearm toolmark examination.” (*Id.* at p. 24.)

Plaintiffs respond that Molnar, Townshend and Balash have used reliable methodology to conclude that the evidence bullets have Class 5R characteristics, and that those bullets could not have been fired from a 6R gun, and that this same methodology has been used by every examiner involved in this case, including Pauch and Wilson and Jarvis. (Pls.’ Resp. at pp. 18-19.) According to Plaintiffs, to disprove that the evidence bullets were fired by the Rossi handgun, an examiner need only prove that one of the rifling characteristics do not match (here, a Class 5R bullet does not match with a Class 6R gun). The technique involved requires the examiner to view the bullets under a microscope and catalog the bullet characteristics. All examiners espoused using this technique to classify firearms and toolmark evidence. (Molnar Dep. at pp. 24-25, 37-39; Balash Dep. at pp. 74-81 (explaining that no comparison of bullets is required to determine rifling characteristics of bullets); Townshend Dep. at pp. 154-55.) Using this agreed reliable methodology, the experts determined that the evidence bullets have class 5R characteristics.

Importantly, not one expert disagrees with this opinion, including Defendants’ expert, Jay Jarvis. In any event, as the court explained in *United States v. Cerna*, No. CR 08-0730 WHA, 2010 WL 3448528 (N.D. Cal. Sept. 1, 2010), “[t]he validity

of the AFTE theory does not require having the suspect weapon” because, even without the weapon, “the expert may still be able to reliably compare markings on different bullets or casings and determine whether these markings indicate bullets or casings were fired from the same weapon” and “may therefore be able to identify the type of firearm, firearm manufacturer, or even particular batch of firearms, that the bullets or casings came from.” *Id.* at 5.

As explained above, Defendants fail to demonstrate that firearms toolmark identification is inherently unreliable and fail to demonstrate that Molnar, Balash or Townshend’s methods were unreliable in this case. Defendants merely contend that “[b]ecause [the experts] did not make a comparison of the Bennett bullets and the Ricks revolver, Townshend, Balash and Molnar were unable to create documentation that satisfies the industry standards or standards for reliable expert testimony in the field of firearm toolmark examination.” (Defs.’ Mot. at p. 24.) However, as explained repeatedly herein, Townshend, Balash and Molnar do not opine that the evidence bullets were fired from a specific gun, but only that the evidence bullets have 5R class characteristics, and that those bullets could not have been fired from a 6R gun. Thus, a comparison of the evidence bullets with bullets test-fired from the Ricks Rossi handgun was not relevant or necessary.

Further, unlike Pauch and Wilson in 1992 (who did not take any pictures and did not take any notes or other documentation to support their (incorrect) opinion of

a “Positive ID” between the evidence bullets and the Rossi handgun), Townshend, Balash and Molnar supported their 2017 and 2018 opinions with notes, worksheets and photographs. (Townshend Dep. at pp. 202-03 (discussing worksheet, notes, and photographs); Balash Dep. at pp. 40-43, 53 (discussing notes and photographs); Molnar Dep. at pp. 12-14, 34, 70-71, 88 (discussing worksheets and photographs)).

And, each expert’s opinions are in essence “confirmed” by every other expert in this case who has independently examined and characterized the evidence bullets as Class 5R. Thus, the Court finds that Molnar’s, Townshend’s and Balash’s methodology in this case is reliable.

IV. CONCLUSION

For all the reasons set forth above, the Court finds that the proposed opinions of David Townshend, David Balash and Dean Molnar satisfy the requirements of Federal Rule of Evidence 702 and are relevant to material issues in the case, and therefore Defendants’ Motion to Strike David Townshend, David Balash and Dean Molnar as Expert Witnesses (ECF No. 93) is **DENIED**.

IT IS SO ORDERED.

Dated: MAR 23 2020



Paul D. Borman
United States District Judge